

**REMARKS:**

Reconsideration of the present application is respectfully requested in view of the following remarks. Prior to this response, claims 20-41 were pending in the application, of which claims 20, 31, 38, 39, 40, and 41 are independent. In the Office Action mailed October 6, 2005, claims 38 and 39 were rejected under 35 U.S.C. § 102(b), and claims 20-37 and 40-41 were rejected under 35 U.S.C. § 103(a). Under this response, claims 20-41 remain pending in this application. Applicant hereby addresses the Examiner's rejections in turn.

I. Amendments to the Claims

Claims 38, 39 and 41 have been amended to clarify that the water sensing wire comprises one or more reinforcement filaments radially internal with respect to an internal radius of the water permeable insulation. Support for these amendments is found in the specification at least at Figures 1 and 2 and at page 12, lines 14-27. Applicant respectfully asserts that these amendments are clarifying in nature and do not limit the scope of the claims as previously presented.

II. Rejection of the Claims Under 35 U.S.C. § 102(b)

In the Office Action, the Examiner rejected claims 38 and 39 under 35 U.S.C. § 102(b) as being anticipated by European Patent No. 0341933 ("*Akiba*"). As discussed above, claims 38 and 39 have been amended to clarify the scope of the claims, and Applicant respectfully submits that the claims overcome the Examiner's rejection.

In order for a reference to anticipate a claim, each and every element set forth in the claim must be found, either expressly or inherently, in the single prior art reference. MPEP 2131; *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed.

Cir. 1987). Claim 38 has been amended to recite that, among other things, "said water sensing wire comprises one or more reinforcement filaments radially internal with respect to an internal radius of said water permeable insulation." Applicant notes that the Examiner pointed out that the water permeable insulation of *Akiba* (4, FIG. 1) contains braided polyester fabric, and that the polyester fabric is therefore "inside" the water permeable insulation. (10-6-05 OA, p. 3). However, Applicant respectfully asserts that the braided polyester fabric is clearly not radially internal with respect to an internal radius of the water permeable insulation, as it is the polyester fabric that comprises the water permeable insulation. Accordingly, *Akiba* does not teach that limitation of amended claim 38 and Applicant therefore requests that the rejection be withdrawn.

Claim 39 has been similarly amended to recite, among other things, "said water sensing wire comprising one or more reinforcement filaments radially internal with respect to an internal radius of said water permeable insulation." Because *Akiba* does not teach this feature, Applicant respectfully requests that the rejection of amended claim 39 be withdrawn.

III. Rejection of Claim 41 Under 35 U.S.C. § 103(a)

In the October 6, 2005 Office Action, the Examiner rejected Claim 41 under 35 U.S.C. § 103(a) as being unpatentable over *Akiba* in view of alleged Applicant's Own Admission of Prior Art ("AOAPA"). The Examiner asserted that the braided polyester fabric disclosed by *Akiba* is "inside" the outer protective covering (i.e., water permeable insulation). However, similar to Claims 38 and 39, amended Claim 41 recites, among other things, "one or more reinforcement filaments are provided radially internal with

respect to an internal radius of said water permeable insulation.” As discussed above, the braided polyester of *Akiba* comprises the outer protective covering, and thus is not radially internal with respect to the internal radius of the outer protective covering. Moreover, the Examiner has pointed to nothing in the *AOAPA* disclosing the above-quoted limitation of Claim 41. Therefore, the cited combination does not disclose each limitation of Claim 41.

Because the cited combination does not disclose each limitation of Claim 41, a *prima facie* case of obviousness has not been established. Accordingly, Applicant respectfully requests that the rejection of Claim 41 be withdrawn.

IV. Rejection of Claims 20-37 and 40 Under 35 U.S.C. § 103(a)

In the October 6, 2005 Office Action, the Examiner rejected Claims 20-37 and 40 under 35 U.S.C. § 103(a) as being unpatentable over *Akiba* in view of alleged (“*AOAPA*”). However, the Office Action does not address the argument made in Applicant’s September 21, 2005 Amendment. Accordingly, Applicant respectfully reiterates the previously presented argument and requests reconsideration of Claims 20-37 and 40.

Under U.S. patent law, if the Examiner’s proposed modification of one prior art reference in light of the teachings of a second prior art reference would render the prior art invention unsatisfactory for its intended purpose, then no suggestion or motivation to make the proposed modification exists. MPEP 2143.01; *In re Gordon*, 733 F.2d 900 (Fed. Cir. 1984). Because modifying the power cable of the *AOAPA* with the leakage sensor of *Akiba*, as the Examiner proposes, would render the water sensing wire taught

by the *AOAPA* unsatisfactory for its intended purpose, the combination does not create a *prima facie* case of obviousness.

The *AOAPA* relied on by the Examiner, illustrated in FIGs. 4-6 of Applicant's specification, discloses a power cable comprising a water sensing wire located within a spirally-wound screen (FIGs. 4-5; p. 3, ll. 5-8, Applicant's spec.). A conducting band is wrapped around the screen (PSCB, FIG. 6, Applicant's spec.). The water sensing wire of the *AOAPA* comprises a solid conductor surrounded by an insulating layer. The two-component design of the water sensing wire minimizes its cross-sectional diameter, enabling the water sensing wire to protrude from the spirally-wound screen by only a minimal amount (FIG. 5, Applicant's spec.). By minimizing the protrusion of the water sensing wire from the screen, the *AOAPA* prevents the conducting band PSCB from placing undue pressure on the water sensing wire, particularly during application of radial stress on the power cable. This has the effect of increasing the life of the water sensing wire by delaying the breakdown of the insulating layer surrounding the water sensing wire, preventing the water-sensing-wire conductor from contacting the conducting band PSCB and signaling a false alarm.

The leakage sensor of *Akiba*, however, cannot be combined with the power cable of the *AOAPA* to achieve the same lifetime-improving result. *Akiba* teaches a leakage sensor comprising a core conductor (1, FIG. 1 of *Akiba*), an insulating material (3, FIG. 1), an outer conductor (2, FIG. 1), and an outer protective covering (4, FIG. 1). The leakage sensor of *Akiba*, comprising twice as many components as the water sensing wire of the *AOAPA*, is necessarily greater in cross-section. Therefore, the leakage sensor of *Akiba* would protrude significantly from the screen of the *AOAPA*, causing the

conducting band PSCB to apply greater pressure to the leakage sensor. This would have the effect of shortening the leakage sensor's service life, as the insulation would break down more quickly, thereby allowing the conducting band to contact the outer conductor 2 sooner. Accordingly, combining the leakage sensor of *Akiba* with the power cable of the *AOAPA* would frustrate the technical objective achieved by the *AOAPA*.

Because the modification of the *AOAPA* with the leakage sensor of *Akiba* would render the water sensing wire of the *AOAPA* unsatisfactory for its intended purpose by shortening its service life, the combination of the *AOAPA* and *Akiba* cannot form a *prima facie* case of obviousness against claims 20-37 and 40. Applicant therefore requests that the Examiner withdraw the rejection of those claims.

V. Conclusion

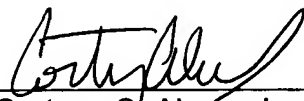
In view of the foregoing remarks, Applicant respectfully requests the reconsideration and reexamination of this application and the timely allowance of the pending claims. The preceding arguments are based only on the arguments in the Office Action, and therefore do not address patentable aspects of the invention that were not addressed by the Examiner in the Office Action. The claims may include other elements that are not shown, taught, or suggested by the cited art. Accordingly, the preceding argument in favor of patentability is advanced without prejudice to other bases of patentability.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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